

Inter-Linking of Rivers

The National Perspective Plan (NPP) was prepared by the then Ministry of Irrigation in August 1980 for transferring water from water surplus basins to water-deficit basins. Under the NPP, the National Water Development Agency (NWDA) identified 30 links (16 under Peninsular Component & 14 under Himalayan Component) for preparation of Feasibility Reports (FRs). The Pre-Feasibility Reports (PFRs) of all 30 links have been prepared and circulated to the concerned State Governments. After survey and investigations, FRs of 14 links under Peninsular Component and FRs of 2 links and draft FRs of 7 links (Indian portion) under Himalayan Component have been completed. Present status, States concerned, and benefits are given in **Annexure**. The Inter-Linking of River (ILR) programme has been taken up on high priority.

Four priority links under Peninsular Rivers Component have been identified for preparation of Detailed Project Report (DPR) viz; Ken-Betwa link project (KBLP) Phase –I & II, Damanganga-Pinjal link project, Par-Tapi-Narmada link project and Mahanadi Godavari link project. The preparation of DPR of a project is taken up after consent of concerned State Governments. DPRs of KBLP Phase-I & Phase-II, Damanganga-Pinjal link project and Par-Tapi-Narmada link project have been completed. The techno-economic clearance and various statutory clearances of the KBLP Phase-I have been accorded. Based on the request of Government of M.P., the DPRs of projects included under KBLP Phase-II viz., Lower Orr dam, Bina complex projects and Kotha barrage have been completed by NWDA/ Government of M.P. and submitted for techno-economical appraisal in Central Water Commission (CWC).

The techno-economic clearance of the Damanganga-Pinjal link project has been accorded subject to statutory clearances. The DPR of Par-Tapi-Narmada link project has been submitted for technical appraisal in CWC. The DPR of the Mahanadi – Godavari link could not be taken up as the Government of Odisha was not agreeable for Mahanadi – Godavari link, a mother link of 9 link system viz., Mahanadi – Godavari – Krishna – Pennar – Palar – Cauvery – Vaigai – Gundar linkage due to large submergence involved in Manibhadra Dam. Based on the suggestions of Govt. of Odisha, NWDA has prepared a preliminary revised proposal of Mahanadi- Godavari Link Project with reduced submergence and submitted to the Govt. of Odisha.

The estimated cost of these four projects for which DPRs have been completed is furnished below:

Sl. No	Name of the Project	Estimated Cost (Rs. in crore) at 2015-16 price level
1.	Ken-Betwa Link Project(Phase-I)	18057
2.	Ken-Betwa Link Project(Phase-II)	8594
3.	Damanganga-Pinjal Link Project	3008

4.	Par-Tapi-Narmada Project	Link	10211
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At the time of preparation of DPR of the individual river link projects, detailed Environmental Impact Assessment (EIA) studies as per Terms of Reference approved by Environmental Appraisal Committee (EAC) of Ministry of Environment and Forests & Climate Change are carried out. EIA study includes impacts on land environment, water resources and its quality, terrestrial ecology (flora, fauna, vegetation cover, wildlife), aquatic ecology (riverine ecology, fisheries), pollution due to noise during construction phase, impact on air quality, impact due to command area development, impacts on local services (like water supply, education, health care, community forests, impacts on business opportunities). All environmental impacts and issues arising out of the EIA studies are duly addressed in Environmental Management Plan which forms a part of DPR.

The impacts of individual ILR project on the human lives, environment, landmass, etc., are suitably addressed in the Environment Impact and Socio-economic impact Assessment studies which is part of the preparation of DPR.

ANNEXURE

Present status of Inter Basin Water Transfer Links, the States involved, name of rivers, proposed benefits and status of Feasibility Reports/Detailed Project Report

Sl. No	Name	States concerned	States benefited	Annual Irrigation (Lakh ha)	Domestic and Industrial supply (MCM)	Hydropower (MW)	Present status
Peninsular Component							
1	Mahanadi (Manibhadra) - Godavari (Dowlaiswaram) link	Odisha, Maharashtra, AP, Karnataka, Chattisgarh & Telangana	Andhra Pradesh & Odisha	0.91+3.52 = 4.43	802	445	FR completed
2	Godavari	-do-	Telangana	1.09+5.04	413	--	FR

	(Inchampalli) - Krishna (Pulichintala) link		and Andhra Pradesh	= 6.13			completed
3	Godavari (Inchampalli) - Krishna (Nagarjunasagar) link	Odisha, Maharashtra, Madhya Pradesh, AP, Karnataka, Chattisgarh & Telangana	Telangana	2.87	237	975	FR completed
4	Godavari (Polavaram) - Krishna (Vijayawada) link	Odisha, Maharashtra, AP, Karnataka, Chattisgarh & Telangana	Andhra Pradesh	5.82	162	--	FR completed
5	Krishna (Almatti) – Pennar link	Maharashtra, Karnataka, Telangana & AP	Andhra Pradesh & Karnataka	1.90+0.68 = 2.58	56	--	FR completed
6	Krishna (Srisailem) – Pennar link	-do-	--	--	--	17	FR completed
7	Krishna (Nagarjunasagar) - Pennar (Somasila) link	Maharashtra, AP & Karnataka	Andhra Pradesh	5.81	124	90	FR completed
8	Pennar (Somasila) - Cauvery (Grand Anicut) link	AP, Karnataka, Tamil Nadu, Kerala & Puducherry	AP, Tamil Nadu & Puducherry	0.49+4.36 + 0.06 = 4.91	1105	--	FR completed
Sl. No	Name	States concerned	States benefited	Annual Irrigation (Lakh ha)	Domestic and Industrial supply	Hydropower (MW)	Present status

					(MCM)		
9	Cauvery (Kattalai) - Vaigai -Gundar link	Karnataka, Tamil Nadu, Kerala & Puducherry	Tamil Nadu	3.38	185	--	FR completed
10	Ken-Betwa link a) Ken-Betwa Link Phase-I	Uttar Pradesh & Madhya Pradesh	Uttar Pradesh & Madhya Pradesh	2.66 + 3.69 =6.35	49	78	FR&DPR (Ph-I&II) completed
	b) Ken-Betwa link Phase-II	- do-	Madhya Pradesh	0.99	6	-	
11	Parbati - Kalisindh- Chambal link	Madhya Pradesh, Rajasthan & Uttar Pradesh (UP requested to be consulted during consensus building)	Madhya Pradesh & Rajasthan	*Alt.I: 2.05+ 0.25 =2.30 (Alt.II: 1.77+ 0.43 = 2.20)	13.2	--	FR completed
12	Par-Tapi-Narmada link	Maharashtra & Gujarat	Gujarat & Maharashtra	2.32	76	22	FR&DPR completed
13	Damanganga-Pinjal link (As per DPR)	-do-	Maharashtra (only water supply to Mumbai)	--	895 (including \$16 MCM from Pinjal dam proposed by GoM)	--	FR&DPR completed
14	Bedti- Varda link	Maharashtra, Andhra Pradesh & Karnataka	Karnataka	0.60	--	4	PFR completed

15	Netravati– Hemavati link	Karnataka, Tamil Nadu & Kerala	Karnataka	0.34	--	--	PFR completed
16	Pamba- Achankovil- Vaippar link	Kerala & Tamil Nadu,	Kerala & Tamil Nadu	0.91	--	508	FR completed

Himalayan Component

Sl. No	Name	States concerned	States benefited	Annual Irrigation (Lakh ha)	Domestic and Industrial supply (MCM)	Hydropower (MW)	Present status
1.	Manas-Sankosh-Tista-Ganga (M-S-T-G) link	Assam, West Bengal, Bihar & Bhutan	Assam, West Bengal & Bihar	2.08 + 1.82 + 2.64 = 6.54	--	5287	PFR completed
2.	Kosi-Ghaghra link	Bihar, Uttar Pradesh & Nepal	Bihar & Uttar Pradesh	8.17 + 0.67 + 1.74 (Nepal) = 10.58	48	--	PFR completed
3.	Gandak-Ganga link	-do-	Uttar Pradesh	37.99 + 2.41 (Nepal) = 40.40	700	--	Draft FR completed (Indian portion)
4.	Ghaghra-Yamuna link	-do-	Uttar Pradesh	25.30 + 1.35 (Nepal)	1391	10884	FR completed (Indian)

				=26.65			portion)
5.	Sarda-Yamuna link	Bihar, UP, Haryana, Rajasthan, Uttarakhand & Nepal	Uttar Pradesh & Uttarakhand	3.45 + 0.30 = 3.75	6250	3600	FR completed (Indian portion)
6.	Yamuna-Rajasthan link	UP, Gujarat, Haryana & Rajasthan	Haryana & Rajasthan	0.435 + 2.442 = 2.877	57	--	Draft FR completed
7.	Rajasthan-Sabarmati link	-do-	Rajasthan & Gujarat	5.35 + 2.04= 7.39	282	--	Draft FR completed
8.	Chunar-Sone Barrage link	Bihar& UP	Bihar& Uttar Pradesh	0.30 + 0.37= 0.67	--	--	Draft FR completed
9.	Sone Dam – Southern Tributaries of Ganga link	Bihar & Jharkhand	Bihar & Jharkhand	2.99 + 0.08=3.07	360	95	PFR completed
10.	Ganga(Farakka) -Damodar-Subernarekha link	West Bengal, Odisha & Jharkhand	West Bengal, Odisha & Jharkhand	7.63 + 0.30 + 0.55 = 8.47	484	-	Draft FR completed
11.	Subernarekha-Mahanadi link	West Bengal& Odisha	West Bengal& Odisha	0.18 + 0.365 = 0.545	--	9	Draft FR completed
12.	Kosi-Mechi link	Bihar, West Bengal & Nepal	Bihar	2.99 + 1.75 = (Nepal) = 4.74	24	3180	PFR completed (Entirely lies in Nepal)
13.	Farakka-Sunderbans link	West Bengal	West Bengal	1.50	184	--	Draft FR completed
14.	Jogighopa-Tista-Farakka link (Alternative to M-S-T-G)	-do-	Assam, West Bengal & Bihar	----	216	1115	Alternate to M-S-T-G link dropped.

- PFR- Pre Feasibility Report
- FR- Feasibility Report
- DPR- Detailed Project Report

This information was given by Union Minister of State for Water Resources, River Development and Ganga Rejuvenation Shri Arjun Ram Meghwal in a written reply in Lok Sabha today.

SKP/IA
(Release ID :177146)